

MILLER CONSTRUCTION, INC.

P.O. BOX 86 ASCUTNEY BLVD WINDSOR, VERMONT 05089-0086
TELEPHONE (802) 674-5525 / FAX (802) 674-5245

TRANSMITTAL

TO: Jennifer Fitch, PE Project Manager Vermont Agency of Transportation	DATE	PROJECT NO.
	8/19/2014	Brookfield BRF FLBR (2)

XX

WE ENCLOSE THE FOLLOWING:

UNDER SEPARATE COVER WE ARE SENDING THE FOLLOWING

COPIES	NUMBER	DESCRIPTION	CODE
1		FRP Pontoon Transportation / Erection Plan	H

CODE:

A FOR INITIAL APPROVAL

B FOR FINAL APPROVAL

C APPROVED AS NOTED-RESUBMISSION REQUIRED

D APPROVED AS NOTED-RESUBMISSION NOT REQUIRED

E DISAPPROVED-RESUBMIT

F QUOTATION REQUESTED

G APPROVED

H FOR APPROVAL

I AS REQUESTED OR REQUIRED

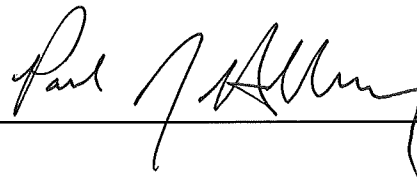
J FOR USE IN ERECTION

K LETTER FOLLOWS

L FOR FIELD CHECK

M FOR YOUR USE

BY:



FRP Raft Pontoons – Transportation and Erection Plan

For

Brookfield Floating Bridge

In

Brookfield, Vermont

BLF – FLBR(2)

Prepared for:

Miller Construction, Inc

By:

Kenway Corporation

August 11, 2014

Brookfield Transportation and Erection Plan

Transportation

Two pontoon sections (one raft) will be transported from Kenway Corporation in Augusta, ME per flatbed trailer to the job site in Brookfield, VT by a third party trucking company. The total weight and method of lifting the pontoons is identified in Kenway drawing 8420-2 (approved 6/18/14). Generally, the pontoons will be loaded on a flatbed at Kenway using a crane and set on 6 in. by 6 in. by 8 ft timber blocking centered under the bulkheads. Depending on the length of the trailer, there may be up to a 3 ft overhang. An edge protector will be fabricated to ensure the 6 in. flange along the radius side is not damaged when the load is tied down to the trailer. The pontoons will be lifted from the trailer at the job site using basket slings and spreader beams suspended from a crane as noted in Kenway drawing 8420-2.

A schematic of the shipping arrangement is provided in Figure 1 on the following page.

Erection

The two mating pontoons will be lowered onto timber sleepers that have been leveled beforehand on the east side of the lake. Once the pontoons have been aligned to the reference marks established during fit-up at Kenway the threaded rods will be passed through each of three locations and prepared for post tensioning. Post tensioning shall be performed with a calibrated center hole jack and corresponding calibration chart. Initial tensioning to 15 kip shall be performed before placing in the lake. (Rods shall be re-tensioned after 1 week and again after an additional 4–6 weeks at which time the protective end caps shall be installed.) Subsequently, the stainless steel shelf will be installed. All bolts will be inserted with washers and a single nut finger tight until every fastener is installed in the assembly. Stainless hardware will be tightened to a torque of 190 ft-lb. A second nut will be installed on all bolts and tightened to 190 ft-lb.

Prior to arrival of the second raft, the first raft will be lifted as noted in the lifting and handling plan (Kenway drawing 8420-2) and placed in the water. The raft shall be anchored close to its respective location in the lake. The second raft will be assembled and post tensioned as described above. The galvanized splice plates will be loosely installed as shown in Figure 2 in the staging area prior to placing in the water. The inclusion of a hardwood shim below the upper splice plate on the outboard side of the bolts will allow the rafts to be aligned in the water without interference and preclude the need to install plates and half the bolts in the water. The same approach can be used to keep the vertical web splice plates open during alignment by placing a shim behind each plate. Once aligned in the water, the shims will be incrementally removed as bolts are placed in the adjacent raft. Once all bolts including two washers and a nut are in finger tight, the galvanized hardware will be tightened to a torque of 300 ft-lb. A second nut shall be installed at a torque of 300 ft-lb. Bottom flange bolts will be installed and tightened by a diver.

This sequence will continue until all five rafts have been installed.

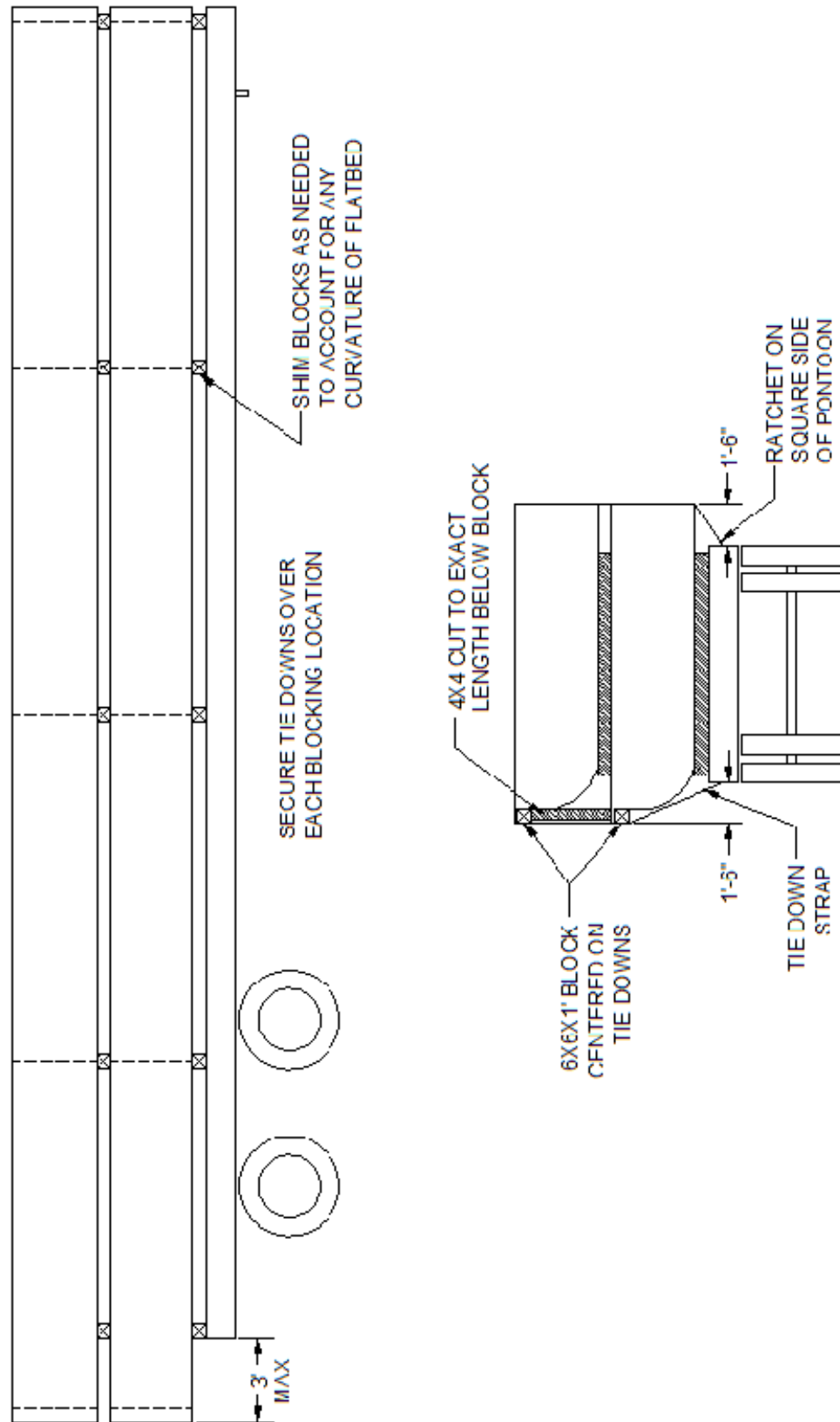
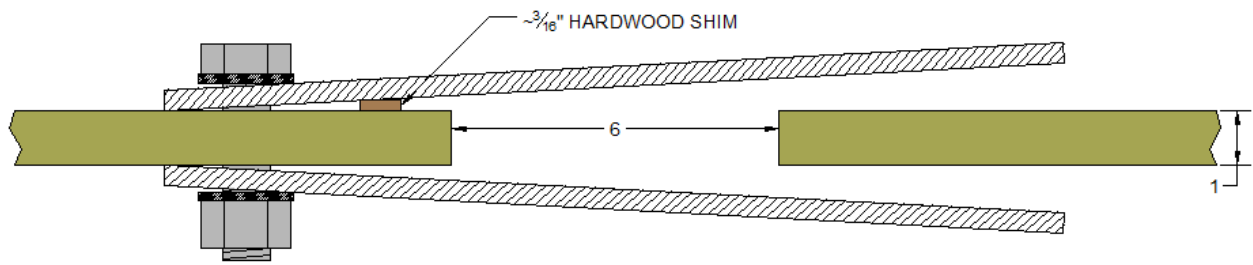
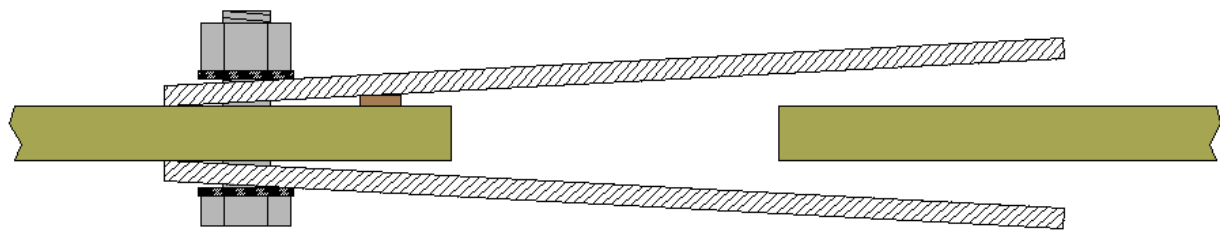


Figure 1 – Trailer Loading Plan



TOP FLANGE ELEVATION



BOTTOM FLANGE ELEVATION

Figure 2 – Loose Installation of Splice Plates